

# Answers for corrections

1. vertex (3,6) shaded inside  
opens down  
dashed line

2.  $\left[ \frac{-9-3\sqrt{5}}{2}, \frac{-9+3\sqrt{5}}{2} \right]$

3. (-3, -1)

4.  $x^2 + 4x + 16 = 0$

5. True product of sum & difference  
 $(a+bi)(a-bi) = a^2 - (bi)^2$   
 $= a^2 - b^2 i^2$   
 $= a^2 + b^2$  REAL

6.  $0 = -16t^2 + 30t - 1$

$t = 1.841s$

7. dimensions 5 miles  $\times$  24 miles

8. 2 decreases, max revenue \$3200

9. between 2.17 yds and 51.16 yds

10. yes because he only needs 46 yds  
and he can clear the post up to 51.16 yds away

11.  $C = \frac{9}{4}$

13.  $C > \frac{9}{4}$

12.  $C < \frac{9}{4}$

14. Two complex solutions